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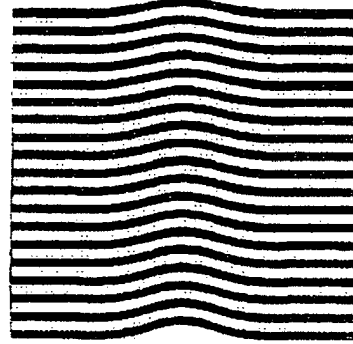
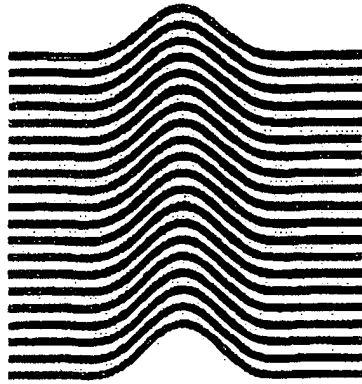
FIG. 1A

FIG. 1B

Focused Beam

(a)

(b)



...

...

009260" 05E69960

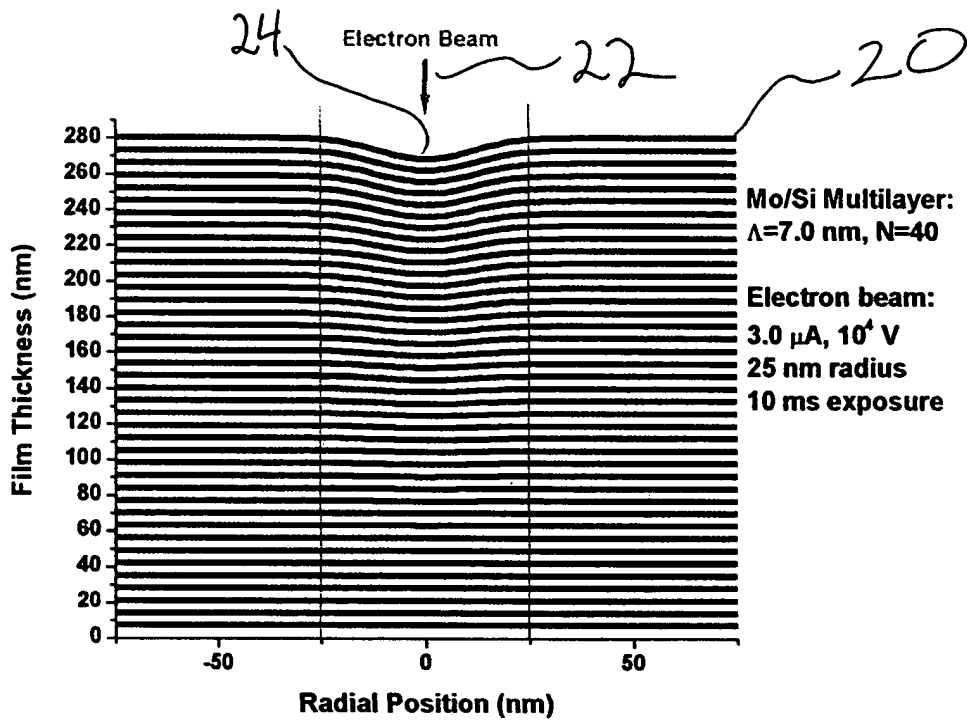


FIG. 2

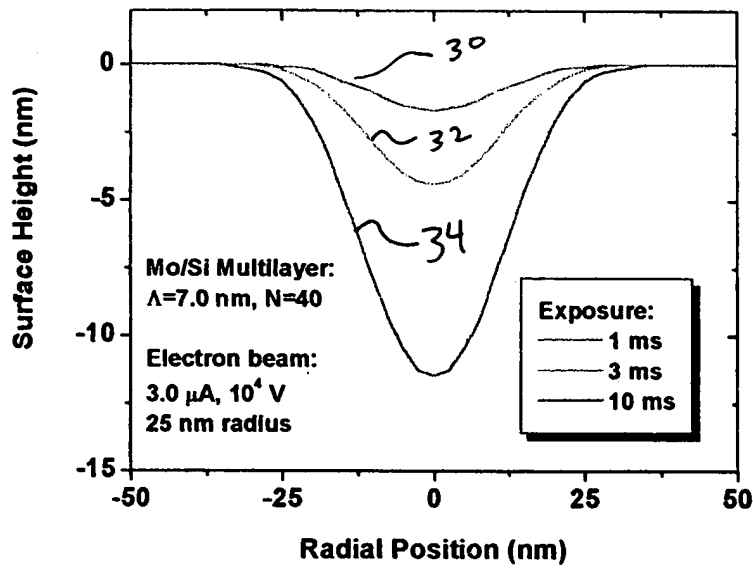
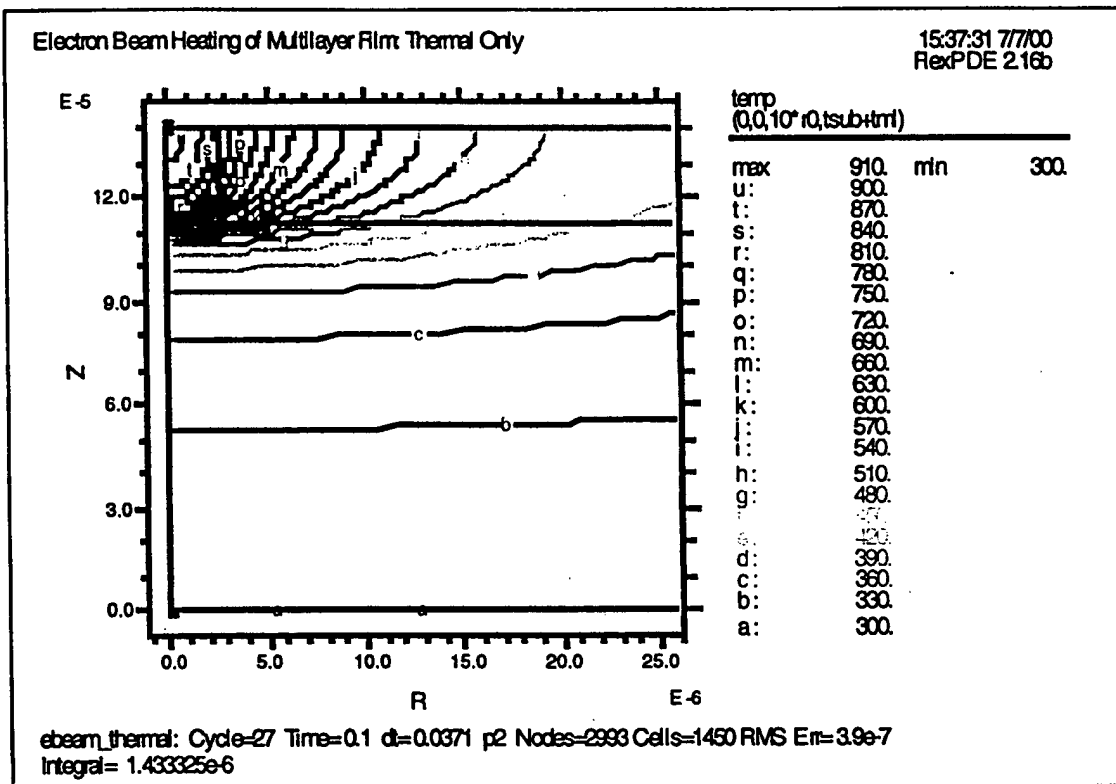


FIG. 3

009260" 05269960

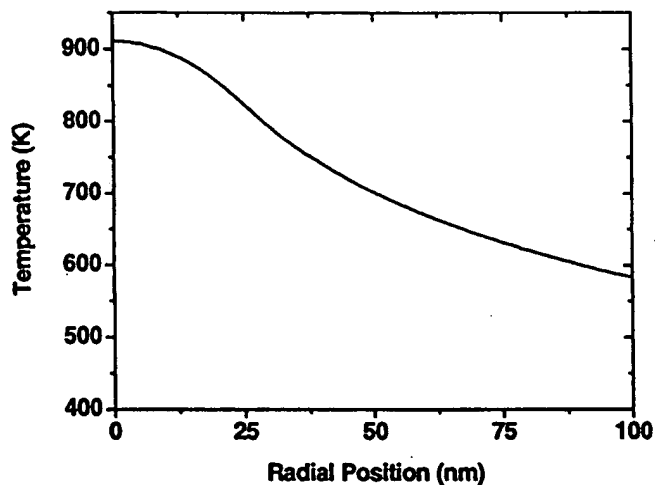
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**Figure 1** Temperature profile for a Mo/Si multilayer film on a Si substrate heated by an electron beam having a current and voltage of 3  $\mu$ A and 10 kV, respectively. The electron beam is incident on the top left corner and has a radius of 25 nm.

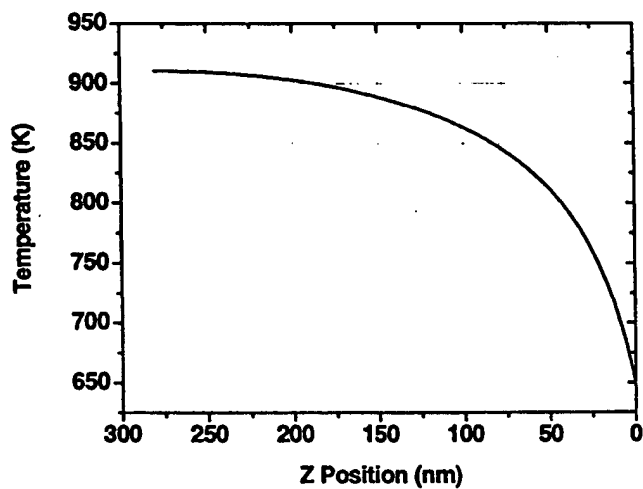
FIG.4

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**Figure 2** Temperature at the top surface ( $z = 280$  nm) of the multilayer film as a function of radial position for heating via an electron beam.

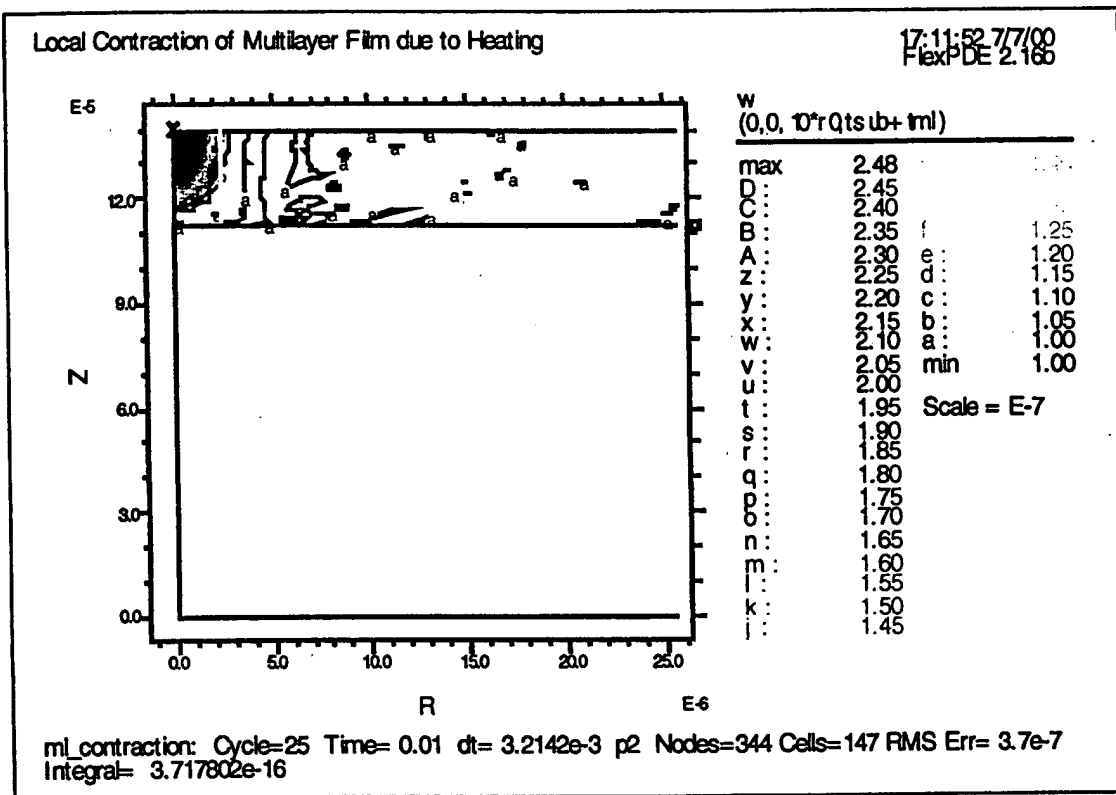
FIG. 5



**Figure 3** Temperature at the center of the electron beam ( $r = 0$ ) as a function of depth in the multilayer film. The total thickness of the film is 280 nm.

FIG. 6

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**Figure 7** Contour plot showing the width  $w$  of the silicide interlayer within the Mo/Si multilayer film after an electron beam exposure of 10 ms. The width varies from the as-deposited value of  $w_0 = 1.0$  nm to a maximum value of 2.48 nm in the center of the electron beam.

FIG.7